

**FEDERALLY ENFORCEABLE STATE  
OPERATING PERMIT (FESOP) RENEWAL  
OFFICE OF AIR QUALITY**

**Rogers Group, Inc. - Bloomington Asphalt  
1100 N. Oard Road  
Bloomington, Indiana 47404**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F 105-13992-03182	
Issued by: Original signed by Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: June 28, 2002  Expiration Date: June 28, 2007

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## SECTION A

## SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in Conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-8-3(b)]

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The Permittee owns and operates a stationary batch mix asphalt plant source.

Responsible Official:	John P. Torres
Source Address:	1100 N. Oard Road, Bloomington, Indiana 47404
Mailing Address:	P.O. Box 25250, Nashville, TN 37202
General Source Phone Number:	(812) 333-8550
SIC Code:	2951
County Location:	Monroe
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, under PSD Rules; Minor Source, Section 112 of the Clean Air Act

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

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This stationary source consists of the following emission units and pollution control devices:

- (a) One (1) batch mixer capable of producing 300 tons per hour of asphalt and exhausting through a cyclone (CE2) and jet pulse baghouse (CE1) and exiting through stack S1.
- (b) One (1) 79 million British thermal units per hour aggregate dryer also exhausting through a cyclone (CE2) and jet pulse baghouse (CE1) and exiting through stack S1, fired by natural gas, No. 2 distillate fuel oil, No. 4 distillate fuel oil or reused (waste) oil.
- (c) Two (2) liquid asphalt storage tanks (TV2 and TV3) with capacities of 25,000 gallons each, heated by an insignificant 2.50 million British thermal units per hour natural gas fired heater.
- (d) Four (4) emulsified asphalt storage tanks (TV4, TV5, TV6 and TV7) with capacities of 25,000 gallons, each.

### A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

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This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour (One (1) oil heater, capacity: 2.50 million British thermal units per hour).
- (b) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.

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- (c) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (d) Two (2) 6,000 gallon self contained storage tanks.
- (e) One (1) heavy fuel preheater heat exchanger with no burner.
- (f) Two (2) duplex strainers and associated piping.
- (g) One (1) twenty-five (25) gallon per minute oil pump.

**A.4 FESOP Applicability [326 IAC 2-8-2]**

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This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).

**A.5 Prior Permits Superseded [326 IAC 2-1.1-9.5]**

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- (a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either
  - (1) incorporated as originally stated,
  - (2) revised, or
  - (3) deletedby this permit.
- (b) All previous registrations and permits are superseded by this permit.

## SECTION B GENERAL CONDITIONS

### B.1 Permit No Defense [IC 13]

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

### B.2 Definitions [326 IAC 2-8-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2, and 326 IAC 2-7) shall prevail.

### B.3 Permit Term [326 IAC 2-8-4(2)]

This permit is issued for a fixed term of five (5) years from the original date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

### B.4 Enforceability [326 IAC 2-8-6]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

### B.5 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

### B.6 Severability [326 IAC 2-8-4(4)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

### B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

### B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)] [326 IAC 2-8-5(a)(4)]

- (a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking

and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the U. S. EPA along with a claim of confidentiality.[326 IAC 2-8-4(5)(E)]

- (c) The Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

**B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]**

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IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

**B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]**

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- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:
  - (1) Enforcement action;
  - (2) Permit termination, revocation and reissuance, or modification; and
  - (3) Denial of a permit renewal application.
- (b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (c) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

**B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]**

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- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.
- (c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

**B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]**

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- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in

letter form no later than July 1 of each year to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
  - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
  - (2) The compliance status;
  - (3) Whether compliance was continuous or intermittent;
  - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
  - (5) Such other facts as specified in Sections D of this permit, IDEM, OAQ, may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**B.13 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]**

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- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs), including the following information on each facility:
  - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "authorized individual" as

defined by 326 IAC 2-1.1-1(1).

- (d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

**B.14 Emergency Provisions [326 IAC 2-8-12]**

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- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:
  - (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
  - (2) The permitted facility was at the time being properly operated;
  - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
  - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section) or,

Telephone No.: 317-233-5674 (ask for Compliance Section)

Facsimile No.: 317-233-5967

Failure to notify IDEM, OAQ, by telephone or facsimile within four (4) daytime business hours after the beginning of the emergency, or after the emergency is discovered or reasonably should have been discovered, shall constitute a violation of 326 IAC 2-8 and any other applicable rules. [326 IAC 2-8-12(f)]

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due

to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
  - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
  - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
    - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
    - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

**B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]**

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:





Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.
- (c) Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.

**B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]**

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- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
  - (1) That this permit contains a material mistake.
  - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
  - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]
- (c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

**B.17 Permit Renewal [326 IAC 2-8-3(h)]**

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- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those

emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, IN 46206-6015

(b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]

(1) A timely renewal application is one that is:

- (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
- (B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(2) If IDEM, OAQ, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

(c) Right to Operate After Application for Renewal [326 IAC 2-8-9]

If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as needed to process the application.

B.18 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]

(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement the administrative amendment changes addressed in the

request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

**B.19 Operational Flexibility [326 IAC 2-8-15]**

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- (a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
- (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V  
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-8-15(b), (c)(1), and (d).

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-8-15(a) and the following additional conditions:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and

- (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

- (c) Emission Trades [326 IAC 2-8-15(c)]  
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (d) Alternative Operating Scenarios [326 IAC 2-8-15(d)]  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

**B.20 Permit Revision Requirement [326 IAC 2-8-11.1]**

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A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-8-11.1.

**B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)] [IC 13-14-2-2]**

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Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

**B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]**

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- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

The application which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-11(b)(3)]

**B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16]**

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- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action, or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAQ, Technical Support and Modeling Section), to determine the appropriate permit fee.

## SECTION C

## SOURCE OPERATION CONDITIONS

Entire Source
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### Emissions Limitations and Standards [326 IAC 2-8-4(1)]

#### C.1 Overall Source Limit [326 IAC 2-8] [326 IAC 2-2]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

- (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period.
- (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
- (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) The potential to emit particulate matter (PM and PM<sub>10</sub>) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period. This limitation for PM shall make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), not applicable.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

#### C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

#### C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or



326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

C.6 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on December 13, 1996, reviewed, and approved. The plan consists of:

- (a) Cleaning paved roads and parking lots by sweeping on an as needed basis (monthly minimum). Power brooming paved roads and parking lots while wet.
- (b) Paving unpaved roads and parking lots with asphalt. Treating with emulsified asphalt as needed. Treating with water as needed. Double chip and seal the road surface and maintain on an as needed basis.
- (c) Maintain minimum size and number of stock piles of aggregate. Treat around the stockpile with emulsified asphalt on an as needed basis. Treat around the stockpile with water as needed. Treat the stockpiles with water as needed.
- (d) Apply water at the feed and the intermediate points of the conveyers as needed.
- (e) Minimize the vehicular distance between transfer points of aggregates. Enclose the transfer points. Apply water to the transfer points on an as needed basis.
- (f) Tarp aggregate hauling vehicles. Maintain vehicle bodies to prevent leakage. Spray aggregates with water during transport. Maintain a 10 mile per hour speed limit in the yard.
- (g) Reduce free fall distance during loading and unloading. Reduce the rate of discharge of the aggregate. Spray the aggregate with water on an as needed basis.

C.7 Operation of Equipment [326 IAC 2-8-5(a)(4)]

Except as otherwise provided by statute, rule or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.8 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

C.9 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regu-

lated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
  - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
  - (2) If there is a change in the following:
    - (A) Asbestos removal or demolition start date;
    - (B) Removal or demolition contractor; or
    - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management  
Asbestos Section, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) Procedures for Asbestos Emission Control  
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4 emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) Indiana Accredited Asbestos Inspector  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable.

### **Testing Requirements [326 IAC 2-8-4(3)]**

#### **C.10 Performance Testing [326 IAC 3-6]**

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- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ, not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

### **Compliance Requirements [326 IAC 2-1.1-11]**

#### **C.11 Compliance Requirements [326 IAC 2-1.1-11]**

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The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

### **Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

#### **C.12 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]**

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Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented upon issuance of this permit. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

Unless otherwise specified in the approval for the new emissions unit, compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

#### **C.13 Maintenance of Emission Monitoring Equipment [326 IAC 2-8-4(3)(A)(iii)]**

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- (a) In the event that a breakdown of the emission monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be

implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no often less than once an hour until such time as the continuous monitor is back in operation.

- (b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

**C.14 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]**

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Any monitoring or testing performed required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63 or other approved methods as specified in this permit.

**C.15 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)] [326 IAC 2-8-5(1)]**

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- (a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ( $\pm 2\%$ ) of full scale reading.
- (b) Whenever a condition in this permit requires the measurement of a temperature, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ( $\pm 2\%$ ) of full scale reading.
- (c) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

**Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

**C.16 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]**

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Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

- (a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) These ERPs shall be submitted for approval to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

within ninety (90) days from the date of issuance of this permit.

The ERP does require the certification by the "authorized individual" as defined by 326 IAC 2-

1.1-1(1).

- (c) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.
- (d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.
- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
- (f) Upon direct notification by IDEM, OAQ, that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.17 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

- (a) A compliance schedule for meeting the requirements of 40 CFR 68; or
- (b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP).

All documents submitted pursuant to this condition shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

C.18 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-8-4] [326 IAC 2-8-5]

- (a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:
  - (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.
  - (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:
  - (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or

- (2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.
- (3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.
- (4) Failure to take reasonable response steps shall constitute a violation of the permit.
- (c) The Permittee is not required to take any further response steps for any of the following reasons:
  - (1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.
  - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.
  - (3) An automatic measurement was taken when the process was not operating.
  - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.
- (e) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

**C.19 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4] [326 IAC 2-8-5]**

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

### **Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]**

#### **C.20 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]**

- (a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

#### **C.21 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]**

- (a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC2-1.1-1(1).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:  
  
Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (d) Unless otherwise specified in this permit, any quarterly report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The reports does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) Reporting periods are based on calendar years.

### **Stratospheric Ozone Protection**

#### **C.22 Compliance with 40 CFR 82 and 326 IAC 22-1**

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156





- (b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

## SECTION D.1

## FACILITY OPERATION CONDITIONS

### **Facility Description [326 IAC 2-8-4(10)]:** Stationary Batch Mix Asphalt Plant

- (a) One (1) batch mixer capable of producing 300 tons per hour of asphalt and exhausting through a cyclone (CE2) and jet pulse baghouse (CE1) and exiting through stack S1.
- (b) One (1) 79 million British thermal units per hour aggregate dryer also exhausting through a cyclone (CE2) and jet pulse baghouse (CE1) and exiting through stack S1, fired by natural gas, No. 2 distillate fuel oil, No. 4 distillate fuel oil or reused (waste) oil.
- (c) Two (2) liquid asphalt storage tanks (TV2 and TV3) with capacities of 25,000 gallons each, heated by an insignificant 2.50 million British thermal units per hour natural gas fired heater.
- (d) Four (4) emulsified asphalt storage tanks (TV4, TV5, TV6 and TV7) with capacities of 25,000 gallons, each.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### **Emission Limitations and Standards [326 IAC 2-8-4(1)]**

#### **D.1.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]**

The provisions of 40 CFR 60 Subpart A - General Provisions, which are incorporated as 326 IAC 12-1, apply to the facility described in this section except when otherwise specified in 40 CFR 60 Subpart I and Subpart Kb.

#### **D.1.2 Volatile Organic Compounds (VOC) [326 IAC 2-8-4][326 IAC 2-2][40 CFR 52.21][326 IAC 8-5-2]**

- (a) The amount of VOC solvent used as diluent in the liquid binder used in cold mix asphalt production from the plant shall be limited such that less than 97.4 tons of VOC is emitted per twelve (12) consecutive month period. This shall be achieved by limiting the total VOC solvent of any one selected binder as follows (when more than one binder is used, the formula in paragraph 6 shall be applied):
  - (1) Cutback asphalt rapid cure liquid binder usage shall be limited to less than 97.4 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.
  - (2) Cutback asphalt medium cure liquid binder usage shall be limited to less than 132 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.
  - (3) Cutback asphalt slow cure liquid binder usage shall be limited to less than 370 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.
  - (4) Emulsified asphalt with solvent liquid binder usage shall be limited to less than 198.7 tons per twelve (12) consecutive month period rolled on a monthly basis.
  - (5) Other asphalt with solvent liquid binder shall be limited to less than 3,701 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.
  - (6) The VOC solvent allotments in shall be adjusted when more than one type of binder

is used per twelve (12) month consecutive period rolled on a monthly basis. In order to determine the tons of VOC emitted per each type of binder, use the following formula and divide the tons of VOC solvent used for each type of binder by the corresponding adjustment ratio listed in the table that follows.

$$\frac{\text{Tons of solvent contained in binder}}{\text{Adjustment ratio}} = \text{tons of VOC emitted}$$

Type of binder	tons VOC solvent	adjustment ratio	tons VOC emitted
cutback asphalt rapid cure		1	
cutback asphalt medium cure		1.36	
cutback asphalt slow cure		3.8	
emulsified asphalt		2.04	
other asphalt		38	

- (7) Liquid binders used in the production of cold mix asphalt shall be defined as follows:
- (A) Cut back asphalt rapid cure, containing a maximum of 25.3% VOC solvent by weight in the liquid binder, with 95% by weight of the VOC solvent evaporating.
  - (B) Cut back asphalt medium cure, containing a maximum of 28.6% VOC solvent by weight in the liquid binder, with 70% by weight of the VOC solvent evaporating.
  - (C) Cut back asphalt slow cure, containing a maximum of 20% VOC solvent by weight in the liquid binder, with 25% by weight of the VOC solvent evaporating.
  - (D) Emulsified asphalt with solvent, containing a maximum of 15% VOC solvent by weight in the liquid binder, with 46.4% by weight of the VOC solvent in the liquid blend evaporating. The percent oil distillate in emulsified asphalt with solvent liquid, as determined by ASTM, must be 7% or less of the total emulsion by volume.
  - (E) Other asphalt with solvent binder, containing a maximum 25.9% VOC solvent by weight in the liquid binder, with 2.5% by weight of the VOC solvent evaporating.

This will limit the potential to emit VOC to 97.4 tons per year from VOC usage, and the total source potential to emit VOC to less than 100 tons per year, including combustion. Thus, this limit will satisfy the requirements of 326 IAC 2-8-4, FESOP, and ensure that the source

is a minor source pursuant to 326 IAC 2-2 and 40 CFR 52.21, PSD.

- (b) Pursuant to 326 IAC 8-5-2, the Permittee shall not allow the use of asphalt emulsion containing more than seven percent (7%) oil distillate by volume of emulsion, except as used for the following purposes:
- (1) penetrating prime coating;
  - (2) stockpile storage mix; and
  - (3) application during the months of November, December, January, February, and March.

D.1.3 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 2-8-4] [326 IAC 7-1.1-1] [326 IAC 7-2-1]

- (a) Pursuant to 326 IAC 2-8-4, the use of No. 2 distillate fuel oil shall be limited to no more than 2,788,732 gallons per twelve (12) consecutive month period. Each gallon of No. 4 distillate fuel oil used shall be considered equal to using 1.06 gallons of No. 2 distillate fuel oil and each gallon of waste oil used shall be considered equal to using 1.13 gallons of No. 2 distillate fuel oil. The sulfur content of the waste oil shall not exceed three-quarters of a percent (0.75%) by weight and the sulfur content of the No. 2 and No. 4 distillate fuel oils shall not exceed one half of a percent (0.5%) by weight. This will limit SO<sub>2</sub> emissions from the use of fuel oils or waste oil to less than 99 tons per year and the potential to emit SO<sub>2</sub> from the entire source to less than 100 tons per year. Thus, the requirements of 326 IAC 2-7, Part 70, do not apply.
- (b) Pursuant to 326 IAC 7-1.1 (SO<sub>2</sub> Emissions Limitations), the SO<sub>2</sub> emissions from the aggregate dryer shall not exceed five tenths (0.5) pounds per million British thermal unit heat input when operating on No. 2 distillate fuel oil or No. 4 distillate fuel oil. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a thirty (30) day rolling weighted average.
- (c) Pursuant to 326 IAC 7-1.1 (SO<sub>2</sub> Emissions Limitations), the SO<sub>2</sub> emissions from the aggregate dryer shall not exceed one and six-tenths (1.6) pounds per million British thermal unit heat input when operating on waste oil. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a thirty (30) day rolling weighted average.

D.1.4 Particulate Matter (PM<sub>10</sub>) [326 IAC 2-8-4] [326 IAC 2-2] [40 CFR 52.21]

Pursuant to 326 IAC 2-8-4, the PM<sub>10</sub> emissions from the aggregate dryer/mixer shall not exceed 7.74 pounds per hour. This will limit the potential to emit PM<sub>10</sub> from the entire plant to 8.86 pounds per hour and 38.8 tons per year, which is less than 100 tons per year. Therefore, the requirements of 326 IAC 2-7, Part 70, do not apply. Compliance with this limit shall also ensure that the source is a minor PSD source pursuant to 326 IAC 2-2 and 40 CFR 52.21, Prevention of Significant Deterioration (PSD).

D.1.5 Particulate Matter (PM) [326 IAC 2-2] [40 CFR 60.92] [326 IAC 12-1] [40 CFR 52.21]

- (a) The potential to emit PM from the aggregate dryer/mixer shall be limited to 45.6 pounds per hour. This will limit the potential to emit PM from the entire asphalt plant to 56.8 pounds per hour, equivalent to 249 tons per year. Thus the requirements of 326 IAC 2-2 and 40 CFR 52.21, PSD, are not applicable.
- (b) The PM limit in (a) is revised from the PM limitation for the dryer/mixer of 55.0 pounds per hour in Condition D.1.1 of the initial FESOP (F 105-7579-03182), issued on June 19, 1997, because that limit did not take into account the potential to emit PM from the screening operations. Also, The potential to emit PM from this plant is limited by an 326 IAC 12, 40 CFR Part 60.90,

Subpart I. Therefore, pursuant to 326 IAC 6-3-2(b)(2), the limitations of 326 IAC 6-3-2 are not applicable. Thus, Condition D.1.1 of F 105-7579-03182, issued on June 19, 1997, is hereby rescinded.

- (c) Pursuant to 40 CFR 60.92 and 326 IAC 12-1, the PM emissions from the aggregate dryer/mixer stack (S1) shall be limited to less than 90 milligrams per dry standard cubic meter (0.04 grains per dry standard cubic foot) and the opacity of emissions shall be less than twenty percent (20%).

#### D.1.6 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for aggregate dryer and batch mixer and any control devices.

### **Compliance Determination Requirements**

#### D.1.7 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11] [40 CFR 60.93] [326 IAC 12]

- (a) Pursuant to F105-7579-03182, issued on June 19, 1997, and Significant Permit Revision 105-14300-03182, issued on July 24, 2001, between 60 and 180 days of beginning the use of any fuel other than natural gas, in order to demonstrate compliance with Conditions D.1.4 and D.1.5, the Permittee shall perform PM and PM<sub>10</sub> testing of the aggregate dryer/mixer utilizing methods approved by the Commissioner. PM and PM<sub>10</sub> testing for the aggregate dryer/mixer stack exhaust is also required prior to July 27, 2005, in order to demonstrate compliance with Conditions D.1.4 and D.1.5. A single test may satisfy both requirements if it is performed between 60 and 180 days of beginning the use of any fuel other than natural gas and prior to July 27, 2005. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM<sub>10</sub> includes filterable and condensible PM<sub>10</sub>. Testing shall be conducted in accordance with Section C- Performance Testing.
- (b) Pursuant to 40 CFR 60.93, compliance with the PM standards in 40 CFR 60.92 shall be determined by using Method 5 to determine particulate concentration and Method 9 to determine opacity. When determining the particulate concentration, the sampling time and sampling volume for each run shall be at least 60 minutes and 0.90 dry standard cubic meters (31.8 dry standard cubic feet).

#### D.1.8 Sulfur Dioxide Emissions and Sulfur Content

Compliance shall be determined utilizing one of the following options.

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pounds per million British thermal unit heat input when operating on No. 2 distillate fuel oil or No. 4 distillate fuel oil and one and six-tenths (1.6) pounds per million British thermal unit heat input when operating on reused (waste) oil by:
  - (1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification; or
  - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
    - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and

- (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the aggregate dryer and drum mixer using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.
- (c) In order to demonstrate compliance with Condition D.1.3(a), the Permittee shall demonstrate that weight percent sulfur dioxide in the fuels used does not exceed one half of a percent (0.5%) by weight when operating on No. 2 distillate oil or No. 4 distillate oil and three-quarters of a percent (0.75%) when operating on reused (waste) oil, using the methods described in (a) of this condition.

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

#### **D.1.9 Particulate Matter (PM)**

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In order to comply with Conditions D.1.4 and D.1.5, the cyclone and baghouse for the aggregate dryer/mixer shall be in operation at all times when the aggregate dryer/mixer is in operation.

#### **D.1.10 Used Oil Requirements [326 IAC 13]**

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The waste oil burned in the aggregate dryer shall comply with the used oil requirements specified in 329 IAC 13 (Used Oil Management). Pursuant to 329 IAC 13-3-2 (Used Oil Specifications), used oil burned for energy recovery that is classified as off-specification used oil fuel shall comply with the provisions of 329 IAC 13-8 (Used Oil Burners Who Burn Off-specification Used Oil For Energy Recovery), including:

- (a) Receipt of an EPA identification number as outlined in 329 IAC 13-8-3 (Notification),
- (b) Compliance with the used oil storage requirements specified in 329 IAC 13-8-5 (Used Oil Storage), and
- (c) Maintaining records pursuant to 329 IAC 13-8-6 (Tracking).

The burning of mixtures of used oil and hazardous waste that is regulated under 329 IAC 3.1 is prohibited at this source.

### **Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

#### **D.1.11 Visible Emissions Notations**

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- (a) Visible emission notations of the conveyors, material transfer points and aggregate dryer/mixer stack (S1) exhaust shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

#### D.1.12 Parametric Monitoring

- (a) The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the aggregate dryer and batch mixer, at least once per shift when the aggregate dryer and batch mixer are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (b) The inlet temperature to the baghouse shall be maintained within a range of 200 and 400 degrees Fahrenheit to prevent overheating of the bags and to prevent low temperatures from mudding up the bags. In the event that bag failure has occurred due to rupture, melting, or any other reason, the Permittee shall take corrective action. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the inlet temperature reading is outside of the above mentioned range for any one reading. The baghouse shall shutdown for visual inspection within 24 hours and bags shall be replaced as needed.

The instrument used for determining the pressure and temperature shall comply with Section C - Pressure Gauge and Other Instruments Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

#### D.1.13 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the aggregate dryer and batch mixer when venting to the atmosphere. A baghouse inspection shall be performed within three (3) months of redirecting vents to the atmosphere and every three (3) months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

#### D.1.14 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and



shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

#### D.1.15 Cyclone Inspections

An inspection shall be performed each calendar quarter of all cyclones controlling the aggregate dryer and batch mixer when venting to the atmosphere. A cyclone inspection shall be performed within three (3) months of redirecting vents to the atmosphere and every three (3) months thereafter. Inspections are optional when venting to the indoors.

#### D.1.16 Cyclone Failure Detection

In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

#### D.1.17 Nonapplicability of Visible Emission Notations for Fugitive Emissions

The requirements of Condition D.1.7(e) of FESOP 105-7579-03182, issued on June 19, 1997, First Minor Permit Revision 105-12036-03182, issued on May 11, 2000, and First Significant Permit Revision 105-14300-03182, issued on July 24, 2001, which requires that the Permittee perform weekly visible emissions observations on the cyclone, jet pulse baghouse, scavenger system ductwork and associated components (e.g., hoppers, etc.) for evidence of fugitive emissions, holes, corrosion, audible leaks, and the like, is not incorporated into this permit because the requirements of 326 IAC 6-4 and 326 IAC 6-5 in Section C of this FESOP satisfy the fugitive dust requirements for this source. Therefore, there are no visible emission notation requirements for the fugitive emission points. Thus, Condition D.1.7(e) of FESOP 105-7579-03182, First Minor Permit Revision 105-12036-03182 and First Significant Permit Revision 105-14300-03182 is hereby rescinded.

### **Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

#### D.1.18 Record Keeping Requirements

- (a) To document compliance with Condition D.1.3(a), the Permittee shall keep records of the amount of each fuel used at the aggregate dryer.
- (b) To document compliance with Condition D.1.11, the Permittee shall maintain records of visible emission notations of the conveyors, material transfer points and aggregate dryer and batch mixer stack (S1) exhaust once per shift.
- (c) To document compliance with Condition D.1.12, the Permittee shall maintain the following:
  - (1) Records of the inlet and outlet differential static pressure during normal operation when venting to the atmosphere once per shift.
  - (2) Documentation of the dates vents are redirected.

- (d) To document compliance with Conditions D.1.13 and D.1.15, the Permittee shall maintain records of the results of the inspections required under Conditions D.1.13 and D.1.15 and the dates the vents are redirected.
- (e) To document compliance with Condition D.1.2, the Permittee shall maintain monthly records the amount and VOC content of each solvent used for emulsified and cutback asphalt. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
- (f) To document compliance with Condition D.1.3, the Permittee shall maintain records in accordance with (1) through (4) below.
  - (1) Calendar dates covered in the compliance determination period;
  - (2) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period, the natural gas fired boiler certification does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1); andIf the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:
  - (3) The name of the fuel supplier; and
  - (4) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.
- (g) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.19 Record Keeping Requirements [40 CFR 60.116b][326 IAC 12-1]

Storage tanks TV2, TV3, TV4, TV5, TV6, and TV7 shall comply with the New Source Performance Standards (NSPS), 326 IAC 12 (40 CFR Part 60.116b only, Subpart Kb). 40 CFR Part 60.116b requires the permittee to maintain accessible records showing the dimension of each storage vessel and an analysis showing the capacity of the storage vessel. Records shall be kept for the life of the storage tanks.

D.1.20 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.2(a) and D.1.3(a) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**SECTION D.2**

**FACILITY OPERATION CONDITIONS**

**Facility Description [326 IAC 2-8-4(10)]: Insignificant Activities**

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour (One (1) oil heater, capacity: 2.50 million British thermal units per hour).
- (b) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.
- (c) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (d) Two (2) 6,000 gallon self contained storage tanks.
- (e) One (1) heavy fuel preheater heat exchanger with no burner.
- (f) Two (2) duplex strainers and associated piping.
- (g) One (1) twenty-five (25) gallon per minute oil pump.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

There are no conditions applicable to these insignificant activities.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
CERTIFICATION**

Source Name: Rogers Group, Inc. - Bloomington Asphalt  
Source Address: 1100 N. Oard Road, Bloomington, Indiana 47404  
Mailing Address: P.O. Box 25250, Nashville, TN 37202  
FESOP No.: F 105-13992-03182

**This certification shall be included when submitting monitoring, testing reports/results  
or other documents as required by this permit.**

Please check what document is being certified:

- 9 Annual Compliance Certification Letter
- 9 Test Result (specify) \_\_\_\_\_
- 9 Report (specify) \_\_\_\_\_
- 9 Notification (specify) \_\_\_\_\_
- 9 Affidavit (specify) \_\_\_\_\_
- 9 Other (specify) \_\_\_\_\_

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Phone:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE BRANCH  
100 North Senate Avenue  
P.O. Box 6015  
Indianapolis, Indiana 46206-6015  
Phone: 317-233-5674  
Fax: 317-233-5967**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
EMERGENCY OCCURRENCE REPORT**

Source Name: Rogers Group, Inc. - Bloomington Asphalt  
Source Address: 1100 N. Oard Road, Bloomington, Indiana 47404  
Mailing Address: P.O. Box 25250, Nashville, TN 37202  
FESOP No.: F 105-13992-03182

**This form consists of 2 pages**

**Page 1 of 2**

**9** This is an emergency as defined in 326 IAC 2-7-1(12)  
    (The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and  
    (The Permittee must submit notice in writing or by facsimile within two (2) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:

Control Equipment:

Permit Condition or Operation Limitation in Permit:

Description of the Emergency:

Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency?    Y    N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO <sub>2</sub> , VOC, NO <sub>x</sub> , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

A certification is not required for this report.



**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**  
**OFFICE OF AIR QUALITY**  
**COMPLIANCE DATA SECTION**

**FESOP Quarterly Report**

Source Name: Rogers Group, Inc. - Bloomington Asphalt  
Source Address: 1100 N. Oard Road, Bloomington, Indiana 47404  
Mailing Address: P.O. Box 25250, Nashville, TN 37202  
FESOP No.: F 105-13992-03182  
Facility: One (1) aggregate dryer burner  
Parameter: SO<sub>2</sub> emissions; fuel usage  
Limit: No. 2 distillate fuel oil usage shall be limited to no more than 2,788,732 gallons per year. Each gallon of No. 4 distillate fuel oil used shall be considered equal to using 1.06 gallons of No. 2 distillate fuel oil and each gallon of waste oil used shall be considered equal to using 1.13 gallons of No. 2 distillate fuel oil. This limit is equivalent to SO<sub>2</sub> emissions of less than 99 tons per year.

YEAR: \_\_\_\_\_

Month	No. 2 distillate fuel oil usage plus equivalent of other fuels to No. 2 distillate fuel oil	No. 2 distillate fuel oil usage plus equivalent of other fuels to No. 2 distillate fuel oil	No. 2 distillate fuel oil usage plus equivalent of other fuels to No. 2 distillate fuel oil
	This Month	Previous 11 Months	12 Month Total

- 9 No deviation occurred in this quarter.  
9 Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_



Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**FESOP Quarterly Report**

**Use this form only if only one (1) type of binder is used, or no binder is used in the past 12 months**

Source Name: Rogers Group, Inc. - Bloomington Asphalt  
Source Address: 1100 N. Oard Road, Bloomington, Indiana 47404  
Mailing Address: P.O. Box 25250, Nashville, TN 37202  
FESOP No.: F 105-13992-03182  
Facility: Asphalt plant  
Parameter: VOC emissions, excluding combustion; VOC solvent usage per twelve (12) consecutive month period rolled on a monthly basis  
Limit: Cutback asphalt rapid cure liquid binder, less than 97.4 tons VOC solvent usage  
Cutback asphalt medium cure liquid binder, less than 132 tons VOC solvent usage  
Cutback asphalt slow cure liquid binder, less than 370 tons VOC solvent usage  
Emulsified asphalt with solvent liquid binder usage, less than 198.7 tons VOC solvent usage  
Other asphalt with solvent liquid binder, less than 3,701 tons VOC solvent usage  
Equivalent to VOC emissions of less than 97.4 tons per twelve (12) consecutive month period, excluding combustion

YEAR: \_\_\_\_\_

TYPE of Binder: \_\_\_\_\_

Month	VOC Solvent Usage (tons)	VOC Solvent Usage (tons)	VOC Solvent Usage (tons)
	This Month	Previous 11 Months	12 Month Total

- 9 No deviation occurred in this quarter.  
9 Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF AIR QUALITY  
 COMPLIANCE DATA SECTION  
 FESOP Quarterly Report**

**Use this form only if more than one (1) type of binder is used in the past 12 months**

Source Name: Rogers Group, Inc. - Bloomington Asphalt  
 Source Address: 1100 N. Oard Road, Bloomington, Indiana 47404  
 Mailing Address: P.O. Box 25250, Nashville, TN 37202  
 FESOP No.: F 105-13992-03182  
 Parameter: VOC emissions, excluding combustion, based on solvent usage  
 Limit: Less than 97.4 tons per twelve (12) consecutive month period, using the following equation:

Tons of solvent contained in binder = tons of VOC emitted  
 Adjustment ratio

Year: \_\_\_\_\_

Month	Type of Liquid binder	Solvent Usage This Month (tons)	Adjustment Ratio	VOC emitted from each binder This Month (tons)	VOC emitted from all binders This Month (tons)	VOC emitted Previous 11 Months (tons)	VOC emitted 12 Month Total (tons)
	Cutback asphalt rapid cure		1				
	Cutback asphalt medium cure		1.36				
	Cutback asphalt slow cure		3.8				
	Emulsified asphalt		2.04				
	other asphalt		38				
	Cutback asphalt rapid cure		1				
	Cutback asphalt medium cure		1.36				
	Cutback asphalt slow cure		3.8				
	Emulsified asphalt		2.04				
	other asphalt		38				
	Cutback asphalt rapid cure		1				
	Cutback asphalt medium cure		1.36				
	Cutback asphalt slow cure		3.8				
	Emulsified asphalt		2.04				
	other asphalt		38				

9 No deviation occurred in this quarter.  
 9 Deviation/s occurred in this quarter.  
 Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Rogers Group, Inc. - Bloomington Asphalt  
Source Address: 1100 N. Oard Road, Bloomington, Indiana 47404  
Mailing Address: P.O. Box 25250, Nashville, TN 37202  
FESOP No.: F 105-13992-03182

Months: \_\_\_\_\_ to \_\_\_\_\_ Year: \_\_\_\_\_

Page 1 of 2

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

Form Completed By: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

June 28, 2002

## Indiana Department of Environmental Management Office of Air Quality

### Addendum to the Technical Support Document for Federally Enforceable State Operating Permit (FESOP) Renewal

**Source Name:** Rogers Group, Inc. - Bloomington Asphalt  
**Source Location:** 1100 N. Oard Road, Bloomington, Indiana 47404  
**County:** Monroe  
**FESOP:** F 105-13992-03182  
**SIC Code:** 2951  
**Permit Reviewer:** CarrieAnn Paukowits

On May 8, 2002, the Office of Air Quality (OAQ) had a notice published in the Herald Times, Bloomington, Indiana, stating that Rogers Group, Inc. - Bloomington Asphalt had applied for a Federally Enforceable State Operating Permit (FESOP) renewal to continue to operate a stationary batch mix asphalt plant with a cyclone and baghouse as controls. The notice also stated that OAQ proposed to issue a FESOP renewal for this operation and provided information on how the public could review the proposed FESOP renewal and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this FESOP renewal should be issued as proposed.

Upon further review, the OAQ has decided to make the following changes to the FESOP renewal. The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language is **bolded**):

#### Change 1:

In addition to visible emission notations for the aggregate dryer/mixer stack, visible emission notations are required for the conveyors and material transfer points. Conditions D.1.11 and D.1.18(b) are revised as follows:

#### D.1.11 Visible Emissions Notations

- (a) Visible emission notations of the **conveyors, material transfer points and** aggregate dryer/mixer stack (S1) exhaust shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for these units shall contain troubleshooting contingency and



response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

#### D.1.18 Record Keeping Requirements

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- (b) To document compliance with Condition D.1.11, the Permittee shall maintain records of visible emission notations of the **conveyors, material transfer points and** aggregate dryer and batch mixer stack (S1) exhaust once per shift.

#### Change 2:

On May 6, 2002, Rogers Group, Inc. submitted additional information indicating that this source uses cutback asphalt as well as emulsified asphalt. Based on the VOC content of the binders used and the maximum asphalt throughput, the potential to emit VOC is assumed to be greater than 250 tons per year. The VOC emissions from emulsified asphalt was limited to less than 100 tons per year in Condition D.1.2(a) of the proposed permit. Conditions D.1.2 and D.1.18(e) are revised to include cutback asphalt as follows:

#### D.1.2 Volatile Organic Compounds (VOC) [326 IAC 2-8-4][**326 IAC 2-2**][**40 CFR 52.21**][326 IAC 8-5-2]

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- (a) The amount of VOC solvent used **as diluent in the liquid binder used in cold mix asphalt production from the plant shall be limited such that less than 97.4 tons of VOC is emitted per twelve (12) consecutive month period. This shall be achieved by limiting the total VOC solvent of any one selected binder as follows (when more than one binder is used, the formula in paragraph 6 shall be applied):**
- (1) **Cutback asphalt rapid cure liquid binder usage shall be limited to less than 97.4 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.**
  - (2) **Cutback asphalt medium cure liquid binder usage shall be limited to less than 132 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.**
  - (3) **Cutback asphalt slow cure liquid binder usage shall be limited to less than 370 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.**
  - (4) ~~for~~ **Emulsified asphalt with solvent liquid binder usage shall be limited to less than 198.7 tons per twelve (12) consecutive month period rolled on a monthly basis.**
  - (5) **Other asphalt with solvent liquid binder shall be limited to less than 3,701 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.**
  - (6) **The VOC solvent allotments in shall be adjusted when more than one type of binder is used per twelve (12) month consecutive period rolled on a monthly basis. In order to determine the tons of VOC emitted per each type of binder, use the following formula and divide the tons of VOC solvent used for each**

**type of binder by the corresponding adjustment ratio listed in the table that follows.** This limitation is based on the following equation:

$$\frac{\text{Tons of solvent contained in binder}}{\text{Adjustment ratio}} = \text{tons of VOC emitted}$$

Type of binder	tons VOC solvent	adjustment ratio	tons VOC emitted
cutback asphalt rapid cure		1	
cutback asphalt medium cure		1.36	
cutback asphalt slow cure		3.8	
emulsified asphalt		2.04	
other asphalt		38	

(7) Liquid binders used in the production of cold mix asphalt shall be defined as follows:

- (A) Cut back asphalt rapid cure, containing a maximum of 25.3% VOC solvent by weight in the liquid binder, with 95% by weight of the VOC solvent evaporating.
- (B) Cut back asphalt medium cure, containing a maximum of 28.6% VOC solvent by weight in the liquid binder, with 70% by weight of the VOC solvent evaporating.
- (C) Cut back asphalt slow cure, containing a maximum of 20% VOC solvent by weight in the liquid binder, with 25% by weight of the VOC solvent evaporating.
- (D) Emulsified asphalt with solvent, containing a maximum of 15% VOC solvent by weight in the liquid binder, with 46.4% by weight of the VOC solvent in the liquid blend evaporating. The percent oil distillate in emulsified asphalt with solvent liquid, as determined by ASTM, must be 7% or less of the total emulsion by volume.
- (E) Other asphalt with solvent binder, containing a maximum 25.9% VOC solvent by weight in the liquid binder, with 2.5% by weight of the VOC solvent evaporating.

This will limit the potential to emit VOC to 97.4 tons per year from VOC usage, based on an adjustment ratio of 2.04 for emulsified asphalt, and the total source potential to emit VOC to

less than 100 tons per year, including combustion. **Thus, this limit will satisfy the requirements of 326 IAC 2-8-4, FESOP, and ensure that the source is a minor source pursuant to 326 IAC 2-2 and 40 CFR 52.21, PSD.**

- (b) Pursuant to 326 IAC 8-5-2, the Permittee shall not allow the use of asphalt emulsion containing more than seven percent (7%) oil distillate by volume of emulsion, except as used for the following purposes:
  - (1) penetrating prime coating;
  - (2) stockpile storage mix; and
  - (3) application during the months of November, December, January, February, and March.

#### D.1.18 Record Keeping Requirements

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- (e) To document compliance with Condition D.1.2, the Permittee shall maintain monthly records the amount and VOC content of each solvent used for emulsified **and cutback** asphalt. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.

#### Change 3:

As a result of Change 2, the report form for VOC emissions when a single binder is used has been revised and a report form has been added for situations when more than one type of binder is used during the twelve (12) month period. These forms are as follows:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**FESOP Quarterly Report**

**Use this form only if only one (1) type of binder is used, or no binder is used in the past 12 months**

Source Name: Rogers Group, Inc. - Bloomington Asphalt  
Source Address: 1100 N. Oard Road, Bloomington, Indiana 47404  
Mailing Address: P.O. Box 25250, Nashville, TN 37202  
FESOP No.: F 105-13992-03182  
Facility: ~~One (1) aggregate dryer burner~~ **Asphalt plant**  
Parameter: VOC emissions, **excluding combustion**; **VOC solvent usage for emulsified asphalt per twelve (12) consecutive month period rolled on a monthly basis**  
Limit: ~~Solvent usage of less than 198.7 tons per consecutive twelve (12) month period, equivalent to VOC emissions of less than 97.4 tons per consecutive twelve (12) month period from emulsified asphalt, using an adjustment ratio of 2.04~~  
**Cutback asphalt rapid cure liquid binder, less than 97.4 tons VOC solvent usage**  
**Cutback asphalt medium cure liquid binder, less than 132 tons VOC solvent usage**  
**Cutback asphalt slow cure liquid binder, less than 370 tons VOC solvent usage**  
**Emulsified asphalt with solvent liquid binder usage, less than 198.7 tons VOC solvent usage**  
**Other asphalt with solvent liquid binder, less than 3,701 tons VOC solvent usage**  
**Equivalent to VOC emissions of less than 97.4 tons per twelve (12) consecutive month period, excluding combustion**

YEAR: \_\_\_\_\_  
TYPE of Binder: \_\_\_\_\_

Month	VOC Solvent Usage (tons)	VOC Solvent Usage (tons)	VOC Solvent Usage (tons)
	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this quarter.  
9 Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Rogers Group, Inc. - Bloomington Asphalt  
Bloomington, Indiana  
Permit Reviewer:MES

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F 105-13992-03182

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF AIR QUALITY  
 COMPLIANCE DATA SECTION  
 FESOP Quarterly Report**

**Use this form only if more than one (1) type of binder is used in the past 12 months**

Source Name: Rogers Group, Inc. - Bloomington Asphalt  
 Source Address: 1100 N. Oard Road, Bloomington, Indiana 47404  
 Mailing Address: P.O. Box 25250, Nashville, TN 37202  
 FESOP No.: F 105-13992-03182  
 Parameter: VOC emissions, excluding combustion, based on solvent usage  
 Limit: Less than 97.4 tons per twelve (12) consecutive month period, using the following equation:

$$\frac{\text{Tons of solvent contained in binder}}{\text{Adjustment ratio}} = \text{tons of VOC emitted}$$

Year: \_\_\_\_\_

Month	Type of Liquid binder	Solvent Usage This Month (tons)	Adjustment Ratio	VOC emitted from each binder This Month (tons)	VOC emitted from all binders This Month (tons)	VOC emitted Previous 11 Months (tons)	VOC emitted 12 Month Total (tons)
	Cutback asphalt rapid cure		1				
	Cutback asphalt medium cure		1.36				
	Cutback asphalt slow cure		3.8				
	Emulsified asphalt		2.04				
	other asphalt		38				
	Cutback asphalt rapid cure		1				
	Cutback asphalt medium cure		1.36				
	Cutback asphalt slow cure		3.8				
	Emulsified asphalt		2.04				
	other asphalt		38				
	Cutback asphalt rapid cure		1				
	Cutback asphalt medium cure		1.36				
	Cutback asphalt slow cure		3.8				
	Emulsified asphalt		2.04				
	other asphalt		38				

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Rogers Group, Inc. - Bloomington Asphalt  
Bloomington, Indiana  
Permit Reviewer:MES

Page 8 of 8  
F 105-13992-03182

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

June 28, 2002

Indiana Department of Environmental Management  
Office of Air Quality

Technical Support Document (TSD)  
for a Federally Enforceable State Operating Permit (FESOP) Renewal

**Source Background and Description**

**Source Name:** Rogers Group, Inc. - Bloomington Asphalt  
**Source Location:** 1100 N. Oard Road, Bloomington, Indiana 47404  
**County:** Monroe  
**SIC Code:** 2951  
**Operation Permit No.:** F 105-13992-03182  
**Permit Reviewer:** CarrieAnn Paukowits

The Office of Air Quality (OAQ) has reviewed a FESOP renewal application from Rogers Group, Inc. - Bloomington Asphalt relating to the operation of a stationary batch mix asphalt plant. Rogers Group, Inc. - Bloomington Asphalt was issued FESOP 105-7579-03182 on June 19, 1997.

**Permitted Emission Units and Pollution Control Equipment**

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) batch mixer capable of producing 300 tons per hour of asphalt and exhausting through a cyclone (CE2) and jet pulse baghouse (CE1) and exiting through stack S1.
- (b) One (1) 79 million British thermal units per hour aggregate dryer also exhausting through a cyclone (CE2) and jet pulse baghouse (CE1) and exiting through stack S1, fired by natural gas, No. 2 distillate fuel oil, No. 4 distillate fuel oil or reused (waste) oil.
- (c) Two (2) liquid asphalt storage tanks (TV2 and TV3) with capacities of 25,000 gallons each, heated by an insignificant 2.50 million British thermal units per hour natural gas fired heater.
- (d) Four (4) emulsified asphalt storage tanks (TV4, TV5, TV6 and TV7) with capacities of 25,000 gallons, each.

**Unpermitted Emission Units and Pollution Control Equipment**

There are no unpermitted facilities operating at this source during this review process.

**New Emission Units and Pollution Control Equipment Receiving New Source Review Approval**

There are no new facilities proposed at this source during this review process.

**Insignificant Activities**

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):



Rogers Group, Inc. - Bloomington Asphalt  
Bloomington, Indiana  
Permit Reviewer:MES

Page 2 of 14  
F 105-13992-03182

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour (One (1) oil heater, capacity: 2.50 million British thermal units per hour).
- (b) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.
- (c) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (d) Two (2) 6,000 gallon self contained storage tanks.
- (e) One (1) heavy fuel preheater heat exchanger with no burner.
- (f) Two (2) duplex strainers and associated piping.
- (g) One (1) twenty-five (25) gallon per minute oil pump.

#### Existing Approvals

- (a) FESOP 105-7579-03182, issued on June 19, 1997;
- (b) First Minor Permit Revision 105-12036-03182, issued on May 11, 2000; and
- (c) First Significant Permit Revision 105-14300-03182, issued on July 24, 2001.

All conditions from previous approvals were incorporated into this FESOP except the following:

- (a) FESOP 105-7579-03182, issued on June 19, 1997

##### Condition D.1.1:

Pursuant to 326 IAC 6-3-2 , particulate matter emissions from the aggregate dryer/mixer shall not exceed 55.0 pounds per hour equivalent to 0.146 grains per dry standard cubic foot, and the particulate matter emissions from the entire asphalt plant shall not exceed 56.8 pounds per hour. Therefore, PSD requirements (326 IAC 2-2) do not apply.

##### Reasons not incorporated:

- (1) The potential to emit PM from this plant is limited by an 326 IAC 12, 40 CFR Part 60.90, Subpart I. Therefore, pursuant to 326 IAC 6-3-2(b)(2), the limitations of 326 IAC 6-3-2 are no longer applicable.
- (2) This permit will still contain a limit to make the source a minor source of PM, pursuant to 326 IAC 2-2, PSD. The potential to emit PM from the aggregate dryer/mixer is limited to 45.6 pounds per hour. This limit is revised from the PM limitation for the dryer/mixer of 55.0 pounds per hour in the initial FESOP (F 105-7579-03182), issued on June 19, 1997. That limit did not take into account the potential to emit PM from the screening operations. This will still limit the potential to emit PM from the entire asphalt plant to 56.8 pounds per hour, equivalent to 249

tons per year, and the requirements of 326 IAC 2-2, PSD, are still not applicable. The stack test on July 27, 2000 also demonstrated compliance with the revised limit.

- (b) FESOP 105-7579-03182, issued on June 19, 1997, First Minor Permit Revision 105-12036-03182, issued on May 11, 2000, and First Significant Permit Revision 105-14300-03182, issued on July 24, 2001

Condition D.1.7(e):

The Permittee shall perform weekly visible emissions observations on the cyclone, jet pulse baghouse, scavenger system ductwork and associated components (e.g., hoppers, etc.) for evidence of fugitive emissions, holes, corrosion, audible leaks, and the like. This does not require the use of a certified visible emissions reader. In the event that visible emissions are detected above the limit required by operation Condition D.1.1 or any visible emissions are detected on the jet pulse baghouse components, the Corrective Action Contingency Plan shall be implemented. Corrective action shall be taken within 8 hours of discovery. If the initial corrective action plan does not correct the problem, then additional corrective actions shall be devised within 8 hours of discovery and shall include a timetable for completion. The corrective actions shall be implemented immediately in accordance with those timetables.

Reason not incorporated:

The requirements of 326 IAC 6-4 and 326 IAC 6-5 in Section C of the FESOP satisfy the fugitive dust requirements for this source. Therefore, there are no visible emission notation requirements for the fugitive emission points.

### **Enforcement Issue**

There are no enforcement actions pending.

### **Recommendation**

The staff recommends to the Commissioner that the FESOP Renewal be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete FESOP Renewal application for the purposes of this review was received on March 2, 2001. Additional information was received on July 3 and October 5, 2001.

There was no notice of completeness letter mailed to the source.

### **Emission Calculations**

See pages 1 through 9 of 9 of Appendix A of this document for detailed emissions calculations.

### **Unrestricted Potential Emissions**

This table reflects the unrestricted potential emissions of the source, excluding the emission limits that were contained in the previous FESOP.

<b>Pollutant</b>	<b>Unrestricted Potential Emissions (tons/year)</b>
PM	greater than 250
PM <sub>10</sub>	greater than 250
SO <sub>2</sub>	greater than 100, less than 250
VOC	less than 100
CO	less than 100
NO <sub>x</sub>	less than 100

Note: For the purpose of determining Title V applicability for particulates, PM<sub>10</sub>, not PM, is the regulated pollutant in consideration.

<b>HAPs</b>	<b>Unrestricted Potential Emissions (tons/year)</b>
Individual	less than 10
TOTAL	less than 25

- (a) The potentials to emit (as defined in 326 IAC 2-1.1-1(16)) of PM<sub>10</sub> and SO<sub>2</sub> are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) Fugitive Emissions  
This type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, but there is an applicable New Source Performance Standards that was in effect on August 7, 1980. Therefore, the fugitive emissions are counted toward determination of PSD and Emission Offset applicability.

#### **Potential to Emit After Issuance**

The source, issued a FESOP on June 19, 1997, has opted to remain a FESOP source, rather than apply for a Part 70 Operating Permit. The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered enforceable only after issuance of the Federally Enforceable State Operating Permit and only to the extent that the effect of the control equipment is made practically enforceable in the permit. The source was issued a first Minor Permit Revision, 105-12036-03182, on May 11, 2000, and a first Significant Permit Revision, 105-14300-03182, on July 24, 2001. The source's potential to emit is based on the emission units included in the original FESOP and subsequent revisions.

	<b>Potential to Emit After Issuance</b> (tons/year)						
Process/emission unit	PM	PM <sub>10</sub>	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
Aggregate dryer and batch mixer	less than 200	33.9	less than 99 (oil) 0.208 (natural gas)	2.54 (combustion) less than 97.4 (emulsified asphalt)	30.0	51.2	9.99
Conveying/handling, Screening, and Storage	49.0	4.93	-		-	-	Negligible
Insignificant Activities	0.021	0.083	0.007	0.060	0.920	34.6	Negligible
Total PTE After Issuance	less than 250	38.9	less than 100	less than 100	30.9	85.8	Single less than 10 Total less than 25

#### County Attainment Status

The source is located in Monroe County.

Pollutant	Status
PM <sub>10</sub>	Attainment
SO <sub>2</sub>	Attainment
NO <sub>2</sub>	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Monroe County has been designated as attainment or unclassifiable for ozone.
- (b) Monroe County has been classified as attainment, maintenance attainment or unclassifiable for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

#### Federal Rule Applicability

The following rule applicabilities are still true:

- (a) The batch mix asphalt manufacturing source is subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.90, Subpart I) because a modification took place after the June 11, 1973 applicability date of this subpart. The modification to the aggregate dryer allowed the use of No. 2 fuel oil, No. 4 fuel oil and reused (waste) oil, in addition to natural gas. The hot mix asphalt plant will be required to comply with the following:
  - (1) Pursuant to 40 CFR 60.93, performance tests are required as specified in Subpart I and as outlined in Part 60.8.
  - (2) Pursuant to 40 CFR 60.92, on or after the date on which the performance tests are completed, the Permittee shall not discharge into the atmosphere from any affected facility any gases which:
    - (A) Contain particulate matter in excess of 90 milligrams per dry standard cubic meter (0.04 grains per dry standard cubic foot).
    - (B) Exhibit 20 percent opacity, or greater.
- During the performance tests conducted in accordance with F 105-7579-03182, issued on June 19, 1997, the maximum PM concentration in any of the three (3) test runs was 0.0023 grains per dry standard cubic foot, which is significantly less than 0.04 grains per dry standard cubic foot. Since the only increase in PM emissions since the test on July 27, 2000, is 0.054 pounds per hour from combustion, the hot mix asphalt plant will comply with this rule. Pursuant to 40 CFR 60.93, an initial performance test to demonstrate compliance with Subpart I is required between 60 and 180 days of beginning the use of any fuel other than natural gas.
- (b) The two (2) 6,000 gallon self contained storage tanks are not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.110, 60.110a and 60.110b, Subparts K, Ka and Kb) because each storage tank has a capacity less than 40 cubic meters.
- (c) The six (6) storage tanks (TV2, TV3, TV4, TV5, TV6, TV7) are subject to NSPS, 326 IAC 12, (40 CFR Part 60.110b, Subpart Kb) since they are assumed to have been constructed after June 11, 1984, and have a storage capacity greater than 40 cubic meters. The tanks only store materials with vapor pressures less than 15.0 kiloPascals. Therefore, these tanks are subject to only 40 CFR Part 60.116b, paragraphs (a) and (b), which require record keeping.
- (d) There are still no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20, 40 CFR Part 61 and 40 CFR Part 63) applicable to this source.

#### **State Rule Applicability - Entire Source**

The following rule applicabilities are still true:

##### **326 IAC 2-6 (Emission Reporting)**

This source is located in Monroe County and the potentials to emit VOC, NO<sub>x</sub>, PM<sub>10</sub>, CO and SO<sub>2</sub> are less than one hundred (100) tons per year. Therefore, 326 IAC 2-6 does not apply.

##### **326 IAC 2-8-4 (FESOP)**

Pursuant to this rule, the amount of PM<sub>10</sub> and SO<sub>2</sub> shall be limited to less than one hundred (100) tons

per year. Therefore, the requirements of 326 IAC 2-7, do not apply.

- (a) Pursuant to this rule and F 105-7579-03182, issued on June 19, 1997, the PM<sub>10</sub> emissions from the aggregate dryer/mixer shall not exceed 7.74 pounds per hour. This will limit the potential to emit PM<sub>10</sub> from the entire plant to 8.86 pounds per hour and 38.8 tons per year, which is less than 100 tons per year. Therefore, the requirements of 326 IAC 2-7, Part 70, do not apply.
- (b) Pursuant to Significant Permit Revision 105-14300-03182, issued on July 24, 2001, the use of No. 2 distillate fuel oil shall be limited to no more than 2,788,732 gallons per twelve (12) consecutive month period. Each gallon of No. 4 distillate fuel oil used shall be considered equal to using 1.06 gallons of No. 2 distillate fuel oil and each gallon of waste oil used shall be considered equal to using 1.13 gallons of No. 2 distillate fuel oil. The sulfur content of the waste oil shall not exceed three-quarters of a percent (0.75%) by weight and the sulfur content of the No. 2 and No. 4 fuel oils shall not exceed one half of a percent (0.5%) by weight. This will limit SO<sub>2</sub> emissions from the use of distillate fuel oils or waste oil to less than 99 tons per year and the potential to emit SO<sub>2</sub> from the entire source to less than 100 tons per year. Thus, the requirements of 326 IAC 2-7, Part 70, do not apply. The equivalency between No. 2 and No. 4 distillate fuel oils is revised in this permit to reflect a revised SO<sub>2</sub> emission factor for No. 4 distillate fuel oil.
- (c) The unrestricted potential to emit NO<sub>x</sub> is less than 100 tons per year, when using any of the fuels, including using natural gas for each hour of the year or natural gas in combination with any of the other fuels. Therefore, no 326 IAC 2-8-4, FESOP, limit is required for NO<sub>x</sub> emissions.
- (d) This source does not use cutback asphalt, but may use emulsified asphalt. The amount of VOC solvent used is limited to less than 198.7 tons per twelve (12) consecutive month period. This will limit the potential to emit VOC from emulsified asphalt usage to 97.4 tons per year, based on an adjustment ratio of 2.04, and the total source potential to emit VOC to less than 100 tons per year, including combustion. This limitation is based on the following equation:

$$\frac{\text{Tons of solvent contained in binder}}{\text{Adjustment ratio}} = \text{tons of VOC emitted}$$

#### 326 IAC 2-2 (Prevention of Significant Deterioration)

This source, constructed prior to August 7, 1977, has a potential to emit more than 250 tons per year of PM and PM<sub>10</sub>. Pursuant to 40 CFR 52.21(i)(4)(i), the source constructed prior to August 7, 1977, did not required a Prevention of Significant Deterioration (PSD) approval. In 1984, the six (6) storage tanks were added to the source. In 1997, the applicant agreed to limit emissions to be a minor source pursuant to 326 IAC 2-2 and 40 CFR 52.21, Prevention of Significant Deterioration (PSD). The source was modified in 2001 to allow the use of No. 2 fuel oil, No. 4 fuel oil and reused (waste) oil, in addition to natural gas at the aggregate dryer. The source has continued to limit emissions as required by F 105-7579-03182, issued on June 19, 1997, and is still a minor source pursuant to PSD. The limitations are as follows:

- (a) The potential to emit PM from the aggregate dryer/mixer shall be limited to 45.6 pounds per hour. This limit is revised from the PM limitation for the dryer/mixer of 55.0 pounds per hour in the initial FESOP (F 105-7579-03182), issued on June 19, 1997. That limit did not take into account the potential to emit PM from the screening operations. This will still limit the

potential to emit PM from the entire asphalt plant to 56.8 pounds per hour, equivalent to 249 tons per year. This emission limitation is accomplished by using a cyclone and baghouse connected in series as control. Thus, the requirements of 326 IAC 2-2, PSD, are not applicable.

- (b) The unrestricted potential to emit PM<sub>10</sub> from the aggregate dryer/mixer is greater than 250 tons per year. The potential to emit PM<sub>10</sub> is limited to less than 100 tons per year to comply with 326 IAC 2-8-4, FESOP. Compliance with that limit will also ensure that this source is a minor source of PM<sub>10</sub> pursuant to 326 IAC 2-2, PSD.

#### 326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity limitations), except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR Part 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

#### 326 IAC 6-4 (Fugitive Dust Emissions Limitations)

This rule requires the source not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

#### 326 IAC 6-5 (Fugitive Particulate Emissions Limitations)

This rule requires a fugitive dust plan to be submitted. The plan was submitted on December 13, 1996, reviewed, and approved. The plan consists of:

- (a) Cleaning paved roads and parking lots by sweeping on an as needed basis (monthly minimum). Power brooming paved roads and parking lots while wet.
- (b) Paving unpaved roads and parking lots with asphalt. Treating with emulsified asphalt as needed. Treating with water as needed. Double chip and seal the road surface and maintain on an as needed basis.
- (c) Maintain minimum size and number of stock piles of aggregate. Treat around the stockpile with emulsified asphalt on an as needed basis. Treat around the stockpile with water as needed. Treat the stockpiles with water as needed.
- (d) Apply water at the feed and the intermediate points of the conveyers as needed.
- (e) Minimize the vehicular distance between transfer points of aggregates. Enclose the transfer points. Apply water to the transfer points on an as needed basis.
- (f) Tarp aggregate hauling vehicles. Maintain vehicle bodies to prevent leakage. Spray aggre-



gates with water during transport. Maintain a 10 mile per hour speed limit in the yard.

- (g) Reduce free fall distance during loading and unloading. Reduce the rate of discharge of the aggregate. Spray the aggregate with water on an as needed basis.

### **State Rule Applicability - Individual Facilities**

The following rule applicability for 326 IAC 6-3-2 has changed since the initial FESOP (105-7579-03182) was issued on June 19, 1997, and should have been, but was not, changed in the First Significant Permit Revision (105-14300-03182), issued on July 24, 2001 :

#### **326 IAC 6-3-2 (Process Operations)**

The potential to emit PM from this plant is limited by an 326 IAC 12, 40 CFR Part 60.90, Subpart I. Therefore, pursuant to 326 IAC 6-3-2(b)(2), the limitations of 326 IAC 6-3-2 are not applicable.

#### **326 IAC 8-5-2 (Asphalt paving rules)**

Although construction of this source commenced prior to January 1, 1980, the source applied for approval after January 1, 1980. Pursuant to 326 IAC 8-5-1(2), the requirements of 326 IAC 8-5-2 are applicable to any asphalt paving application made after January 1, 1980. Pursuant to 326 IAC 8-5-2, the Permittee shall not allow the use of asphalt emulsion containing more than seven percent (7%) oil distillate by volume of emulsion, except as used for the following purposes:

- (a) penetrating prime coating;
- (b) stockpile storage mix; and
- (c) application during the months of November, December, January, February, and March.

#### **326 IAC 7 (Sulfur Dioxide Rules)**

Since the potential to emit SO<sub>2</sub> from the dryer burner is twenty-five (25) tons per year or more. Therefore, the requirements of 326 IAC 7-1.1 are applicable.

- (a) When operating on No. 2 or No. 4 distillate fuel oil, the sulfur dioxide emissions shall be limited to five-tenths (0.5) pound per million British thermal units. Compliance with this limitation shall be accomplished by limiting the weight percent sulfur in the No. 2 distillate fuel oil and the No. 4 distillate fuel oil to no more than one half of one percent (0.5%).
- (b) When operating on waste oil, the sulfur dioxide emissions shall be limited to one and six tenths (1.6) pounds per million British thermal units. Compliance with this limitation shall be accomplished by limiting the weight percent sulfur in the waste oil to no more than two percent (2.0%).

#### **326 IAC 12-1 (New Source Performance Standards)**

- (a) The hot mix asphalt plant is required to comply with the requirements of 40 CFR 60.90, Subpart I, Standards of Performance for Hot Mix Asphalt Facilities, as described in the "Federal Rule Applicability" section of this TSD.

- (b) The six (6) storage tanks (TV2, TV3, TV4, TV5, TV6, TV7) are required to comply with 40 CFR Part 60.116b, paragraphs (a) and (b), as described in the "Federal Rule Applicability" section of this TSD.

## Testing Requirements

All testing requirements from previous approvals were incorporated into this FESOP.

A stack test for PM and PM<sub>10</sub> emissions to determine compliance with 326 IAC 2-8-4 and the minor PSD source limits, making 326 IAC 2-2 not applicable, was performed July 27, 2000. This test showed that the asphalt plant is in compliance with its permit requirements.

PM and PM<sub>10</sub> testing is required for the drum mixer and dryer/burner stack exhaust between 60 and 180 days of beginning the use of any fuel other than natural gas, in order to assure compliance with 326 IAC 2-8-4 and 40 CFR 60, Subpart I, and the minor PSD source limits making 326 IAC 2-2 not applicable. PM and PM<sub>10</sub> testing for the drum mixer and dryer/burner stack exhaust is also required prior to July 27, 2005, in order to assure compliance with 326 IAC 2-8-4 and 40 CFR 60, Subpart I, and the minor PSD source limits making 326 IAC 2-2 not applicable. A single test may satisfy both requirements if it is performed between 60 and 180 days of beginning the use of any fuel other than natural gas and prior to July 27, 2005.

## Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements from the initial FESOP that are still applicable to this source are as follows:

- (a) Visible emission notations of the aggregate dryer/mixer stack (S1) exhaust shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal. For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation,

Implementation, Records, and Reports, shall be considered a violation of this permit.

- (b) The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the aggregate dryer and batch mixer, at least once per shift when the aggregate dryer and batch mixer are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (c) The inlet temperature to the baghouse shall be maintained within a range of 200-400 degrees Fahrenheit to prevent overheating of the bags and to prevent low temperatures from mudding up the bags. In the event that bag failure has occurred due to rupture, melting, or any other reason, the Permittee shall take corrective action. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the inlet temperature reading is outside of the above mentioned range for any one reading. The baghouse shall shutdown for visual inspection within 24 hours and bags shall be replaced as needed.
- (d) An inspection shall be performed each calendar quarter of all bags controlling the aggregate dryer and batch mixer when venting to the atmosphere. A baghouse inspection shall be performed within three (3) months of redirecting vents to the atmosphere and every three (3) months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.
- (e) In the event that bag failure has been observed:
  - (1) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
  - (2) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (f) An inspection shall be performed each calendar quarter of all cyclones controlling the aggregate dryer and batch mixer when venting to the atmosphere. A cyclone inspection shall

be performed within three (3) months of redirecting vents to the atmosphere and every three (3) months thereafter. Inspections are optional when venting to the indoors.

(g) In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

These monitoring conditions are necessary because the cyclone and baghouse for the aggregate dryer and drum mixer must operate properly to ensure compliance with 326 IAC 2-8 (FESOP) and 40 CFR 60.90 (Subpart I) and to make the requirements of 326 IAC 2-2 (PSD) not applicable.

All compliance requirements from previous approvals were incorporated into this FESOP except the following:

The Permittee shall perform weekly visible emissions observations on the cyclone, jet pulse baghouse, scavenger system ductwork and associated components (e.g., hoppers, etc.) for evidence of fugitive emissions, holes, corrosion, audible leaks, and the like. This does not require the use of a certified visible emissions reader. In the event that visible emissions are detected above the limit required by operation Condition D.1.1 or any visible emissions are detected on the jet pulse baghouse components, the Corrective Action Contingency Plan shall be implemented. Corrective action shall be taken within 8 hours of discovery. If the initial corrective action plan does not correct the problem, then additional corrective actions shall be devised within 8 hours of discovery and shall include a timetable for completion. The corrective actions shall be implemented immediately in accordance with those timetables.

Reason not incorporated: The requirements of 326 IAC 6-4 and 326 IAC 6-5 in Section C of the FESOP satisfy the fugitive dust requirements for this source. Therefore, there are no visible emission notation requirements for the fugitive emission points.

## **Conclusion**

The operation of this stationary batch mix asphalt plant shall be subject to the conditions of the attached proposed FESOP No.: F 105-13992-03182.

## Appendix A: Emission Calculations

**Company Name:** Rogers Group, Inc. - Bloomington Asphalt  
**Plant Location:** 1100 N. Oard Road, Bloomington, Indiana 47404  
**County:** Monroe  
**FESOP:** F 105-13992  
**Plt. ID:** 105-03182  
**Date:** March 2, 2001  
**Permit Reviewer:** CarrieAnn Paukowits

### I. Potential Emissions

#### A. Source emissions before controls

##### Hot Oil Heater on Oil (oil/<100MMBTU/uncontrolled)

The following calculations determine the amount of emissions created by #2 & #1 distillate fuel oil @ 0.5 % sulfur, based on 8760 hours of use and AP-42, Tables 1.3-1, 1.3-2, 1.3-3

Pollutant:	<u>0.000 MMBtu/hr * 8760 hrs/yr</u>	<u>* Ef (lbs/1000 gal) = (tons/yr)</u>
	141800.0 Btu/gal * 2000 lbs/ton	
P M:	2.0 lbs/1000 gal =	<u>0.000</u> tons/yr
PM-10	3.3 lbs/1000 gal =	<u>0.000</u> tons/yr
S O x:	71.0 lbs/1000 gal =	<u>0.000</u> tons/yr
N O x:	20.0 lbs/1000 gal =	<u>0.000</u> tons/yr
V O C:	0.34 lbs/1000 gal =	<u>0.000</u> tons/yr
C O:	5.0 lbs/1000 gal =	<u>0.000</u> tons/yr

##### Hot Oil Heater on Gas (gas/<100MMBTU/uncontrolled)

The following calculations determine the amount of emissions created by natural gas combustion, based on 8760 hours of use, AP-42 Ch. 1.4, Tables 1.4-1, 1.4-2, 1.4-3

Pollutant:	<u>2.500 MMBtu/hr * 8760 hrs/yr</u>	<u>* Ef (lbs/MMcf) = (tons/yr)</u>
	1000 Btu/cf * 2000 lbs/ton	
P M:	1.9 lbs/MMcf =	<u>0.021</u> tons/yr
P M-10:	7.6 lbs/MMcf =	<u>0.083</u> tons/yr
S O x:	0.6 lbs/MMcf =	<u>0.007</u> tons/yr
N O x:	100.0 lbs/MMcf =	<u>1.10</u> tons/yr
V O C:	5.5 lbs/MMcf =	<u>0.060</u> tons/yr
C O:	84.0 lbs/MMcf =	<u>0.920</u> tons/yr

##### Dryer Burner (gas/<100MMBTU/uncontrolled)

The following calculations determine the amount of emissions created by natural gas combustion, based on 8760 hours of use, AP-42 Ch. 1.4, Tables 1.4-1, 1.4-2, 1.4-3

Pollutant:	<u>79.0 MMBtu/hr * 8760 hrs/yr</u>	<u>* Ef (lbs/MMcf) = (tons/yr)</u>
	1000 Btu/cf * 2000 lbs/ton	
P M:	1.9 lbs/MMcf =	<u>0.657</u> tons/yr
P M-10:	7.6 lbs/MMcf =	<u>2.63</u> tons/yr
S O x:	0.6 lbs/MMcf =	<u>0.208</u> tons/yr
N O x:	100.0 lbs/MMcf =	<u>34.6</u> tons/yr
V O C:	5.5 lbs/MMcf =	<u>1.90</u> tons/yr
C O:	84.0 lbs/MMcf =	<u>29.1</u> tons/yr

**Dryer Burner (gas/>100MMBTU/uncontrolled)**

The following calculations determine the amount of emissions created by natural gas combustion, based on 8760 hours of use, AP-42 Ch. 1.4, Tables 1.4-1, 1.4-2, 1.4-3

Pollutant:	<u>0.000 MMBtu/hr * 8760 hrs/yr</u>	<u>* Ef (lbs/MMcf) (tons/yr)</u>
	1000 Btu/cf * 2000 lbs/ton	
P M:	1.9 lbs/MMcf =	<u>0.000</u> tons/yr
P M-10:	7.6 lbs/MMcf =	<u>0.000</u> tons/yr
S O x:	0.6 lbs/MMcf =	<u>0.000</u> tons/yr
N O x:	280.0 lbs/MMcf =	<u>0.000</u> tons/yr
V O C:	5.5 lbs/MMcf =	<u>0.000</u> tons/yr
C O:	84.0 lbs/MMcf =	<u>0.000</u> tons/yr

Post-NSPS = 190

**Dryer Burner (gas/>100MMBTU/low nox)**

The following calculations determine the amount of emissions created by natural gas combustion, based on 8760 hours of use, AP-42 Ch. 1.4, Tables 1.4-1, 1.4-2, 1.4-3 (low NOx burner = 140, flue gas recirculation = 100)

Pollutant:	<u>0.000 MMBtu/hr * 8760 hrs/yr</u>	<u>* Ef (lbs/MMcf) (tons/yr)</u>
	1000 Btu/cf * 2000 lbs/ton	
P M:	1.9 lbs/MMcf =	<u>0.000</u> tons/yr
P M-10:	7.6 lbs/MMcf =	<u>0.000</u> tons/yr
S O x:	0.6 lbs/MMcf =	<u>0.000</u> tons/yr
N O x:	140.0 lbs/MMcf =	<u>0.000</u> tons/yr
V O C:	5.5 lbs/MMcf =	<u>0.000</u> tons/yr
C O:	84.0 lb/MMcf =	<u>0.000</u> tons/yr

**(#2 & #1 oil) Dryer Burner <100**

The following calculations determine the amount of emissions created by #2 & #1 distillate fuel oil @ 0.5 % sulfur, based on 8760 hours of use and AP-42, Tables 1.3-1, 1.3-2, 1.3-3

Pollutant:	<u>79.0 MMBtu/hr * 8760 hrs/yr</u>	<u>* Ef (lbs/1000 gal) = (tons/yr)</u>
	139000.0 Btu/gal * 2000 lbs/ton	
P M:	2.0 lbs/1000 gal =	<u>4.98</u> tons/yr
PM-10:	3.3 lbs/1000 gal =	<u>8.21</u> tons/yr
S O x:	71.0 lbs/1000 gal =	<u>177</u> tons/yr
N O x:	20.0 lbs/1000 gal =	<u>49.8</u> tons/yr
V O C:	0.34 lbs/1000 gal =	<u>0.846</u> tons/yr
C O:	5.0 lbs/1000 gal =	<u>12.4</u> tons/yr

If Rating >100 mmBtu	
N O x:	<b>24.0</b>
V O C:	<b>0.20</b>

**(#4 oil/ <100MMBTU) Dryer Burner**

The following calculations determine the amount of emissions created by #4 distillate fuel oil @ 0.5 % sulfur, based on 8760 hours of use and AP-42, Tables 1.3-1, 1.3-2, 1.3-3

Pollutant:	<u>79.0 MMBtu/hr * 8760 hrs/yr</u>	<u>* Ef (lbs/1000 gal) = (tons/yr)</u>
	138000.0 Btu/gal * 2000 lbs/ton	
P M:	2.0 lbs/1000 gal =	<u>5.01</u> tons/yr
PM-10:	3.3 lbs/1000 gal =	<u>8.27</u> tons/yr
S O x:	75.0 lbs/1000 gal =	<u>188</u> tons/yr
N O x:	20.0 lbs/1000 gal =	<u>50.1</u> tons/yr
V O C:	0.34 lbs/1000 gal =	<u>0.853</u> tons/yr
C O:	5.0 lbs/1000 gal =	<u>12.5</u> tons/yr

**(#4 oil/ >100MMBTU)****Dryer Burner**

The following calculations determine the amount of emissions created by #4 distillate  
 fuel oil @ 0.000 % sulfur, based on 8760 hours of use and AP-42, Tables 1.3-1, 1.3-2, 1.3-3

Pollutant:	<u>0.0 MMBtu/hr * 8760 hrs/yr</u>	<u>* Ef (lbs/1000 gal) = (tons/yr)</u>
	<u>0.0 Btu/gal * 2000 lbs/ton</u>	
P M:	2.0 lbs/1000 gal =	<u>0.000</u> tons/yr
PM-10:	3.3 lbs/1000 gal =	<u>0.000</u> tons/yr
S O x:	0.0 lbs/1000 gal =	<u>0.000</u> tons/yr
N O x:	24.0 lbs/1000 gal =	<u>0.000</u> tons/yr
V O C:	0.20 lbs/1000 gal =	<u>0.000</u> tons/yr
C O:	5.0 lbs/1000 gal =	<u>0.000</u> tons/yr

**(waste oil/ vaporizing burner)**

The following calculations determine the amount of emissions created by waste  
 fuel oil @ 0.500 % sulfur, based on 8760 hours of use and AP-42, Chapter 1.11

0.000

% Ash

0.000

% Lead

Pollutant:	<u>0.0 MMBtu/hr * 8760 hrs/yr</u>	<u>* Ef (lbs/1000 gal) = (tons/yr)</u>
	<u>0.0 Btu/gal * 2000 lbs/ton</u>	
P M:	0.0 lbs/1000 gal =	<u>0.000</u> tons/yr
P M-10:	0.0 lbs/1000 gal =	<u>0.000</u> tons/yr
S O x:	50.0 lbs/1000 gal =	<u>0.000</u> tons/yr
N O x:	11.0 lbs/1000 gal =	<u>0.000</u> tons/yr
VOC	1.0 lbs/1000 gal =	<u>0.000</u> tons/yr
C O:	1.7 lbs/1000 gal =	<u>0.000</u> tons/yr
Pb:	0.0 lbs/1000 gal =	<u>0.000</u> tons/yr

**(waste oil/atomizing burner)**

The following calculations determine the amount of emissions created by waste  
 fuel oil @ 0.750 % sulfur, based on 8760 hours of use and AP-42 Chapter 1.11

0.700

% Ash

0.002

% Lead

Pollutant:	<u>79.0 MMBtu/hr * 8760 hrs/yr</u>	<u>* Ef (lbs/1000 gal) = (tons/yr)</u>
	<u>136000.0 Btu/gal * 2000 lbs/ton</u>	
P M:	46.2 lbs/1000 gal =	<u>118</u> tons/yr
P M-10:	39.9 lbs/1000 gal =	<u>102</u> tons/yr
S O x:	80.3 lbs/1000 gal =	<u>204</u> tons/yr
N O x:	16.0 lbs/1000 gal =	<u>40.7</u> tons/yr
VOC	1.0 lbs/1000 gal =	<u>2.54</u> tons/yr
C O:	2.10 lbs/1000 gal =	<u>5.34</u> tons/yr
Pb:	0.10 lbs/1000 gal =	<u>0.254</u> tons/yr



**\*\* aggregate drying: drum-mix plant \*\***

The following calculations determine the amount of emissions created by aggregate drying, based on 8760 hours of use and AP-42, Chapter 11.1, Table 11.1-3, rev. 12/00

P M:	28 lbs/ton x	<u>0.0</u>	tons/hr x	8760 hrs/yr =	<u>0.000</u>	tons/yr
		2000	lbs/ton			
P M-10:	6.5 lbs/ton x	<u>0</u>	tons/hr x	8760 hrs/yr =	<u>0.000</u>	tons/yr
		2000	lbs/ton			
Lead:	3.30000000E-06 lbs/ton x	<u>0</u>	tons/hr x	8760 hrs/yr =	<u>0.000</u>	tons/yr
		2000	lbs/ton			
HAPs:	0.0076 lbs/ton x	<u>0</u>	tons/hr x	8760 hrs/yr =	<u>0.000</u>	tons/yr
		2000	lbs/ton			

HAPs include benzene, ethylbenzene, formaldehyde, methyl chloroform, naphthalene, toluene, xylene; arsenic, cadmium, chromium, manganese, mercury, and nickel compounds.

**\*\* aggregate drying: batch-mix plant \*\***

The following calculations determine the amount of emissions created by aggregate drying, based on 8760 hours of use and EPA SCC #3-05-002-05:

P M:	32 lbs/ton x	<u>300.0</u>	tons/hr x	8760 hrs/yr =	<u>42048</u>	tons/yr
		2000	lbs/ton			
P M-10:	4.5 lbs/ton x	<u>300</u>	tons/hr x	8760 hrs/yr =	<u>5913</u>	tons/yr
		2000	lbs/ton			
Lead:	3.30000000E-06 lbs/ton x	<u>300</u>	tons/hr x	8760 hrs/yr =	<u>0.004</u>	tons/yr
		2000	lbs/ton			
HAPs:	0.0076 lbs/ton x	<u>300</u>	tons/hr x	8760 hrs/yr =	<u>9.99</u>	tons/yr
		2000	lbs/ton			

HAPs include benzene, ethylbenzene, formaldehyde, methyl chloroform, naphthalene, toluene, xylene; arsenic, cadmium, chromium, manganese, mercury, and nickel compounds.

**\*\* conveying / handling \*\***

The following calculations determine the amount of emissions created by material handling of aggregate, based on 8760 hours of use and AP-42, Ch 11.19.2

$$E_f = .0032 \frac{(U/5)^{1.3} \cdot k}{(M/2)^{1.4}} \quad \underline{\underline{0.006 \text{ lbs/ton}}}$$

where k= 1 (particle size multiplier)  
U = 12 mph mean wind speed (worst case)  
M = 3.0 % moisture

$$P M : \quad \underline{\underline{0.006}} \text{ lbs/ton} \times \frac{\underline{\underline{300}} \text{ tons/hr}}{2000 \text{ lbs/ton}} \times 8760 \text{ hrs/yr} = \underline{\underline{7.44}} \text{ tons/yr}$$

$$P M-10: \quad 10\% \text{ of PM} = \underline{\underline{0.744}} \text{ tons/yr}$$

<b>Screening</b>	PM:	<u>300</u> tons/hr x	0.0315 lbs/ton	/ 2000 lbs/ton x	8760 hrs/yr =	<u>41.391</u> tons/yr	AP-42 Ch.11.19.2
	P M-10:	10% of PM =				<u>4.14</u> tons/yr	

**\*\* unpaved roads \*\***

The following calculations determine the amount of emissions created by vehicle traffic on unpaved roads, based on 8760 hours of use and AP-42, Ch 11.2.1.

**NO UNPAVED ROADS**

**A. Tri-axle Truck**

<u>0.0</u> trips/hr x			
<u>0.00</u> miles/roundtrip x			
8760 hrs/yr =		<u>0.0</u> miles per year	
<b>For PM</b>	<b>For PM-10</b>		
	$E_f = \{k \cdot [(s/12)^{0.8}] \cdot [(W/3)^b] / [(M_{dry}/0.2)^c] \cdot [(365-p)/365]\}$		
11.24	= 2.27 lb/mile		
10	where k = 2.6 (particle size multiplier for PM-10) (k=10 for PM-30 or TSP)		
4.8	s = 4.8 mean % silt content of unpaved roads		
0.5	b = 0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)		
0.4	c = 0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)		
38	W = 38 tons average vehicle weight		
0.2	Mdry = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)		
125	p = 125 number of days with at least 0.254mm of precipitation (See Figure 13.2.2-1)		
<hr/>		<hr/>	
11.24 lb/mi x	0 mi/yr =	PM	<u>0.00</u> tons/yr
2000 lb/ton			
<hr/>		<hr/>	
2.27 lb/mi x	0 mi/yr =	PM-10	<u>0.00</u> tons/yr
2000 lb/ton			

**B. Front End Loader**

<u>0.0</u> trips/hr x			
<u>0.000</u> miles/roundtrip x			
8760 hrs/yr =		<u>0.0</u> miles per year	
<b>For PM</b>	<b>For PM-10</b>		
	$E_f = \{k \cdot [(s/12)^{0.8}] \cdot [(W/3)^b] / [(M_{dry}/0.2)^c] \cdot [(365-p)/365]\}$		
11.24	= 2.27 lb/mile		
10	where k = 2.6 (particle size multiplier for PM-10) (k=10 for PM-30 or TSP)		
4.8	s = 4.8 mean % silt content of unpaved roads		
0.5	b = 0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)		
0.4	c = 0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)		
38	W = 38 tons average vehicle weight		
0.2	Mdry = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)		
125	p = 125 number of days with at least 0.254mm of precipitation (See Figure 13.2.2-1)		
<hr/>		<hr/>	
11.24 lb/mi x	0 mi/yr =	PM	<u>0.00</u> tons/yr
2000 lb/ton			
<hr/>		<hr/>	
2.27 lb/mi x	0 mi/yr =	PM-10	<u>0.00</u> tons/yr
2000 lb/ton			

**C. Semi Truck**

$$\frac{0.0 \text{ trips/hr} \times 0.0 \text{ miles/roundtrip} \times 8760 \text{ hrs/yr}}{0.0 \text{ miles per year}}$$

**For PM****For PM-10**

11.24  
10  
4.8  
0.5  
0.4  
38  
0.2  
125

$$E_f = \{k * [(s/12)^{0.8}] * [(W/3)^b] / [(M_{dry}/0.2)^c] * [(365-p)/365]\}$$

= 2.27 lb/mile

where k = 2.6 (particle size multiplier for PM-10) (k=10 for PM-30 or TSP)

s = 4.8 mean % silt content of unpaved roads

b = 0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)

c = 0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)

W = 38 tons average vehicle weight

M<sub>dry</sub> = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)

p = 125 number of days with at least 0.254mm of precipitation (See Figure 13.2.2-1)

$$\frac{11.24 \text{ lb/mi} \times 0 \text{ mi/yr}}{2000 \text{ lb/ton}} = \text{PM} \quad 0.00 \text{ tons/yr}$$

$$\frac{2.27 \text{ lb/mi} \times 0 \text{ mi/yr}}{2000 \text{ lb/ton}} = \text{PM-10} \quad 0.00 \text{ tons/yr}$$

**All Trucking**

Total PM: 0.00 tons/yr

Total PM-10: 0.00 tons/yr

**\* \* storage \* \***

The following calculations determine the amount of emissions created by wind erosion of storage stockpiles, based on 8760 hours of use and AP-42, Ch 11.2.3.

$$E_f = 1.7 * (s/1.5) * (365-p) / 235 * (f/15)$$

= 1.74 lbs/acre/day for sand

= 1.16 lbs/acre/day for stone

= 1.16 lbs/acre/day for slag

= 1.16 lbs/acre/day for gravel

= 1.16 lbs/acre/day for RAP

where s = 1.5 % silt for sand

s = 1.0 % silt of stone

s = 1.0 % silt of slag

s = 1.0 % silt of gravel

s = 1.0 % silt for RAP

p = 125 days of rain greater than or equal to 0.01 inches

f = 15 % of wind greater than or equal to 12 mph

$$E_p (\text{storage}) = E_f * sc * (20 \text{ cuft/ton}) * (365 \text{ days/yr})$$

$$\frac{(2000 \text{ lbs/ton}) * (43560 \text{ sqft/acre}) * (25 \text{ ft})}{1000} = 0.058 \text{ tons/yr for sand}$$

= 0.039 tons/yr for stone

= 0.000 tons/yr for slag

= 0.000 tons/yr for gravel

= 0.019 tons/yr for RAP

Total PM: 0.116 tons/yr

where sc = 10.0 ,000 tons storage capacity for sand

sc = 10.0 ,000 tons storage capacity for stone

sc = 0 ,000 tons storage capacity for slag

sc = 0 ,000 tons storage capacity for gravel

sc = 5 ,000 tons storage capacity for RAP

P M-10:	35% of PM =	0.020 tons/yr for sand
	35% of PM =	0.014 tons/yr for stone
	35% of PM =	0.000 tons/yr for slag
	35% of PM =	0.000 tons/yr for gravel
	35% of PM =	0.007 tons/yr for RAP
Total PM-10:		<b>0.041 tons/yr</b>

Emissions before controls (combustion plus production) are as follows:

natural gas		#2 oil	Plus heater on natural gas	#4 oil	Plus heater on natural gas	waste oil	Plus heater on natural gas
P M:	<b>42098</b> tons/yr	P M:	<b>42102</b> tons/yr	P M:	<b>42102</b> tons/yr	P M:	<b>42215</b> tons/yr
P M-10:	<b>5921</b> tons/yr	P M-10:	<b>5926</b> tons/yr	P M-10:	<b>5926</b> tons/yr	P M-10:	<b>6020</b> tons/yr
S O x:	<b>0.214</b> tons/yr	S O x:	<b>177</b> tons/yr	S O x:	<b>188</b> tons/yr	S O x:	<b>204</b> tons/yr
N O x:	<b>35.7</b> tons/yr	N O x:	<b>50.9</b> tons/yr	N O x:	<b>51.2</b> tons/yr	N O x:	<b>41.8</b> tons/yr
V O C:	<b>1.963</b> tons/yr	V O C:	<b>0.907</b> tons/yr	V O C:	<b>0.913</b> tons/yr	V O C:	<b>2.60</b> tons/yr
C O:	<b>30.0</b> tons/yr	C O:	<b>13.4</b> tons/yr	C O:	<b>13.5</b> tons/yr	C O:	<b>6.26</b> tons/yr
Lead:	<b>0.004</b> tons/yr	Lead:	<b>0.004</b> tons/yr	Lead:	<b>0.004</b> tons/yr	Lead:	<b>0.004</b> tons/yr
HAPs:	<b>9.99</b> tons/yr	HAPs:	<b>9.99</b> tons/yr	HAPs:	<b>9.99</b> tons/yr	HAPs:	<b>9.99</b> tons/yr

## B. Source emissions after controls

### dryer combustion: gas

P M:	0.66 tons/yr x	<b>0.00201</b> emitted after controls =	<b>0.001</b> tons/yr
P M-10:	2.63 tons/yr x	<b>0.00201</b> emitted after controls =	<b>0.005</b> tons/yr

### dryer combustion: #2 oil

P M:	4.98 tons/yr x	<b>0.00201</b> emitted after controls =	<b>0.010</b> tons/yr
P M-10:	8.21 tons/yr x	<b>0.00201</b> emitted after controls =	<b>0.017</b> tons/yr

### hot oil heater combustion: gas

P M:	0.021 tons/yr x	<b>1.00000</b> emitted after controls =	<b>0.021</b> tons/yr
P M-10:	0.083 tons/yr x	<b>1.00000</b> emitted after controls =	<b>0.083</b> tons/yr

### hot oil heater combustion: #2 oil

P M:	0.000 tons/yr x	<b>1.00000</b> emitted after controls =	<b>0.000</b> tons/yr
P M-10:	0.000 tons/yr x	<b>1.00000</b> emitted after controls =	<b>0.000</b> tons/yr

### dryer combustion: #4 oil

P M:	5.01 tons/yr x	<b>0.00201</b> emitted after controls =	<b>0.010</b> tons/yr
P M-10:	8.27 tons/yr x	<b>0.00201</b> emitted after controls =	<b>0.017</b> tons/yr

### dryer combustion: waste oil

P M:	117.55 tons/yr x	<b>0.00201</b> emitted after controls =	<b>0.236</b> tons/yr
P M-10:	101.52 tons/yr x	<b>0.00201</b> emitted after controls =	<b>0.204</b> tons/yr

### aggregate drying:

P M:	42048.00 tons/yr x	<b>0.00201</b> emitted after controls =	<b>84.5</b> tons/yr
P M-10:	5913.00 tons/yr x	<b>0.00201</b> emitted after controls =	<b>11.9</b> tons/yr

### conveying/handling:

P M:	7.44 tons/yr x	<b>1.000</b> emitted after controls =	<b>7.44</b> tons/yr
P M-10:	0.74 tons/yr x	<b>1.000</b> emitted after controls =	<b>0.744</b> tons/yr

**screening**

P M: 41.39 tons/yr x 1.000 emitted after controls = 41.4 tons/yr  
P M-10: 4.14 tons/yr x 1.000 emitted after controls = 4.14 tons/yr

**unpaved roads:**

P M: 0.00 tons/yr x 50.00% emitted after controls = 0.000 tons/yr  
P M-10: 0.00 tons/yr x 50.00% emitted after controls = 0.000 tons/yr

**storage:**

P M: 0.116 tons/yr x 50.00% emitted after controls = 0.058 tons/yr  
P M-10: 0.041 tons/yr x 50.00% emitted after controls = 0.020 tons/yr

Emissions after controls (combustion plus production) are as follows:

	Gas	#2 Oil	#4 Oil	Waste Oil	
P M:	133	133	133	134	tons/yr
P M-10:	16.9	16.8	16.8	17.0	tons/yr

**II. Allowable Emissions**

A. The following calculations determine the maximum sulfur content of distillate #2 fuel oil allowable by 326 IAC 7:

limit: 0.5 lbs/MMBtu  
0.5 lbs/MMBtu x 139000 Btu/gal= 69.5 lbs/1000gal  
69.5 lbs/1000gal / 142 lb/1000 gal = 0.489  
Sulfur content must be less than or equal to 0.5 % to comply with 326 IAC 7  
and to limit SO2 emissions to 99 tons per year or less.

B. The following calculations determine the maximum sulfur content of residual waste fuel oil allowable by 326-IAC 7:

limit: 1.6 lbs/MMBtu  
1.6 lbs/MMBtu x 136000 Btu/gal= 217.6 lbs/1000gal  
217.6 lbs/1000gal / 107 lbs/1000 gal = 2.03  
(check burner type)  
Sulfur content must be less than or equal to 2.0 % to comply with 326 IAC 7  
and to limit SO2 emissions to 99 tons per year or less.

C. The following calculations determine the maximum sulfur content of distillate #4 fuel oil allowable by 326-IAC 7:

limit:	0.5 lbs/MMBtu		
	0.5 lbs/MMBtu x	<u>138000</u> Btu/gal=	69.0 lbs/1000gal
	69.0 lbs/1000gal /	<u>150</u> lbs/1000 gal =	<u>0.460</u>
		<u>0.5</u> % to comply with 326 IAC 7	

Sulfur content must be less than or equal to and to limit SO2 emissions to 99 tons per year or less.

### III. Limited Potential Emissions

#### FUEL USAGE LIMITATION: BASED ON NOx

The potential to emit NOx from the entire source is less than 100 tons per year. Therefore, no FESOP limit is required for NOx.

#### FUEL USAGE LIMITATION: BASED ON SO2

##### FUEL USAGE LIMITATION FOR BURNER (#2 Oil)

<u>177</u> tons SO2 year	*	<u>2000</u> lbs ton	=	<u>353488</u> lbs SO2 year	
<u>353488</u> lbs SO2 year	/	<u>71.0</u> lbs 1000 gal	=	<u>4978705</u> gal year	
<u>4978705</u> gal year	*	<u>99.0</u> tons/yr 177 tons/yr	=	<u>2788732</u> gal year	FESOP Limit

##### FUEL USAGE LIMITATION FOR BURNER (#4 Oil)

<u>188</u> tons SO2 year	*	<u>2000</u> lbs ton	=	<u>376109</u> lbs SO2 year	
<u>376109</u> lbs SO2 year	/	<u>75.0</u> lbs 1000 gal	=	<u>5014783</u> gal year	
<u>5014783</u> gal year	*	<u>99.0</u> tons/yr 188 tons/yr	=	<u>2640000</u> gal year	FESOP Limit

##### FUEL USAGE LIMITATION FOR BURNER (Waste Oil)

<u>204</u> tons SO2 year	*	<u>2000</u> lbs ton	=	<u>408354</u> lbs SO2 year	
<u>408354</u> lbs SO2 year	/	<u>80.3</u> lbs 1000 gal	=	<u>5088529</u> gal year	
<u>5088529</u> gal year	*	<u>99.0</u> tons/yr 204 tons/yr	=	<u>2467290</u> gal year	FESOP Limit